Preface

1. The 305(b) Report

Under Section 305(b) of the Clean Water Act, the Environmental Protection Agency (EPA) is tasked with the assessment and reporting on the quality of the nation's waters. Assessments are based on the degrees to which waterbodies meet designated uses. States gather this information and submit it to EPA in a comprehensive "305(b) report". EPA uses the individual reports to prepare a biennial *National Water Quality Inventory Report to Congress*.

The goals of the 305(b) report are:

> Comprehensive coverage characterizing all waters in each State, Territory, Interstate Water commission, the District of Columbia, and participating Tribe. Comprehensive coverage will lead to comprehensive national coverage.
>
> Reducing paperwork while increasing the amount of assessed waters in each State, other jurisdiction, and participating Tribe.
>
> Annual electronic updates of key information for all assessed waters during the previous year, starting with 1997 for pilot States ready to do so.
>
> Georeferencing 305(b) information to identify and map specific waterbodies, including whether they meet water quality standards, and to enable long-term tracking of trends.
>
> More rapid real-time public availability of water quality information.

For 1998 and beyond, the preferred format is:

> An annual electronic report accompanied in even years by an abbreviated narrative report. The abbreviated narrative report will contain only information required by law that has changed from the last report, and a simple reference to that report. Included is the plan for comprehensive assessment coverage described above.

Periodic, electronic updates are needed for three reasons:

> Assessments and data management should be ongoing activities, not performed in haste prior to preparation of a 305(b) report.
>
> States, EPA and land management agencies need the current information for ongoing management decisions.

EPA needs the data for biennial reports to Congress, Clean Water Act preauthorization, and other national planning activities.

Contents of an Annual Electronic Update include:

Waterbody-level assessment data for the previous calendar year which include:

-Waterbody name and location
- Degree of designated use support
- Biological integrity indicator (new)
- Pollutants or stressors (causes)
- Sources (e.g. urban runoff)
- Sizes for most types of data (e.g. miles of the waterbody impaired by metals)

A GIS coverage showing assessment results since last update, or hard-copy maps showing assessment results.

A brief dictionary and description of data sources.

Updated ground water tables in database, spreadsheet or word processing format.

Contents of an Abbreviated Hard-copy 305(b) report:

PART I: EXECUTIVE SUMMARY/ OVERVIEW - provide new and revised version for each hard-copy report.

PART II: BACKGROUND (Atlas, Total Waters, Water Pollution Control Program, Cost/Benefit Assessment, Special State Concerns and Recommendations) - report on changes since last hard-copy report.

PART III: SURFACE WATER ASSESSMENT (Monitoring Program, Assessment Methodology and Summary Data, etc.)

Include plan and status of achieving comprehensive assessments; in addition, report on changes since last hard-copy report.

Summary tables for rivers/streams, lakes, and estuaries are optional if electronic reports of all key data are submitted electronically, which will allow EPA to calculate summaries. However, if the State is using a probability-based monitoring network, report overall network results in the hard-copy 305(b) reports (include waterbody-level data for that network in the assessment database).

Update Clean Lakes tables and wetlands section and tables if significant changes occurred since last hard-copy report.

PART IV: GROUND WATER ASSESSMENT (Overview of Ground Water Contamination Sources and Protection Programs; Summaries of Contamination Sources, Ground Water Quality, and Ground Water-Surface Water Interactions) - Report on changes since last hard-copy report. Summary tables are optional if State provides them via electronic reporting.

The above is a brief summary of the elements which comprise the 305(b) report. More explicit details regarding the actual information that must be reported is described in the *Guidelines for Preparation of the Comprehensive State Water Quality Assessments (305(b) Reports) and Electronic Updates: Report Contents* (September 1997), and the *Guidelines for Preparation of the Comprehensive State Water Quality Assessments (305(b) Reports) and Electronic Updates: Supplement* (September 1997). This structure was followed to the maximum extent practicable for the completion of the 1998 305(b) Report.

2. The 2000 305(b) Report

This report deals primarily with current, ongoing projects that were implemented during the previous two-year period (January 1998 to December 1999). In general, there were no changes to the scope of the report, except for minor updates to a few background and assessment information.

3. Procedure for determining Use Support

The EPA/DOH agreement requires a reassessment of those areas where sampling had been conducted in the two-year period, however the electronic database is still being developed. Outstanding areas of development include, the implementation of a new Storet database, and a new Microsoft Access-based Waterbody System (WBS) database.

The 305(b) report summarizes the assessments of a State's waterbodies. These waterbodies are separated by type into several categories (coastal shoreline, lakes, rivers/streams, freshwater wetlands, tidal wetlands, estuaries). Individual waterbodies are assigned to one of these categories (e.g. one mile of coastal shoreline, two acres of estuary, five miles of stream, etc.). The individual waterbodies may be incorporated as a whole unit or subdivided into multiple segments (this is a subjective determination made by the assessor at the time of the assessment). The size of the segments can, and will, change from assessment to assessment.

Each waterbody/segment is assessed with the information recorded on individual data sheets. (The fields include Waterbody ID, Waterbody Name, Waterbody Type, Waterbody Size,

Waterbody Location, USGS Cataloging Unit, Monitoring Stations, FIPS Code, etc.) This information is then entered into the WBS electronic database program.

One of the key fields in these assessments is the Use Supports. The Use Supports consist of an Overall assessment, and ten underlying individual categories (Aquatic Life Support, Fish Consumption, Shellfishing, Swimmable, Secondary Contact Recreation, Drinking Water Supply, Nondegradation, Aesthetics, Agriculture, and Cultural/Ceremonial.)

Each of the individual categories was scored based on whether there were any human-related activities which impacted the particular waterbody such that the waterbody was impaired. (e.g. was swimming prohibited due to an impairment? If yes, what was the duration of the impairment?) If there was an impairment, the next step was to determine the extent. If the duration of the impairment was less than 10 percent of the total time, the Use Support was considered "Fully Supporting." If the duration was between 10 and 25 percent, it was considered "Partially Supporting." If the duration was greater than 25 percent, it was considered "Not Supported."

Unlike the previous report where pathogen contamination was correlated with the Aquatic Life Use Support, it is now correlated with the Swimmable Use Support. For the current report, the data for the assessments are specifically on marine recreational waters (i.e., waters that are actually used for swimming).

All other correlations remain unchanged, exotics with Aquatic Life Support; nutrients, silt, flow alteration, other flow alteration, noxious aquatic plants, and turbidity with Nondegradation; and litter with Aesthetics.

The Overall Use Support reflected the rating of the underlying individual Use Supports. If one individual Use Support was not supported, the Overall use Support was listed as partially supportive. For two or more uses that were not supported, the Overall Use support was also listed as not supported.

4. Criteria used in the assessment of the Swimmable Use Support

DOH monitors the shoreline areas for the presence of indicator bacterial organisms. The standard is based on the concentration of *Enterococcus* bacteria. However, it is a known problem that runoff contributes *Enterococcus* as well because *Enterococcus* exists and replicates in tropical soil.

In addition to *Enterococcus*, the densities of *Clostridium perfringens* bacteria are monitored at selected stations. The use of *Clostridium perfringens* provides a better indicator due to its association with human fecal contamination. The exceedance of the *Enterococcus* standard is evaluated with that of the *Clostridium perfringens* guideline for inclusion as an impairment.